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# The 2014 Annual Report

of the City of Columbus – Engineering

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*This Annual Report is prepared for the City of Columbus, Bartholomew County, the commissions and boards involved in local land use planning and administration, as well as the following 2014 elected community leaders:*

**Columbus Mayor:**  
*The Honorable Kristen Brown*

**Columbus City Council:**  
*Dascal Bunch  
Ryan Brand  
Frank Jerome  
Frank Miller  
Tim Shuffett  
Kenny Whipker  
Jim Lienhoop*

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## Staff Overview

The Engineering Department staff has a total of six members and includes both Bartholomew County natives and those who have relocated to the area. The Engineering Department staff provides expertise in the topics of road construction and storm water management, as well as traffic regulations, electronic global information systems (eGIS), and accessibility. The staff is active in the community and always welcomes an opportunity to speak with residents and businesses about engineering issues.

- *Beth Fize!* - Beth has served as the City Engineer since December 2013. Beth grew up in Cleveland, Ohio and moved to Indiana with her family in 1998. Beth is a graduate of Purdue University where she earned her bachelor degree in Civil Engineering. Prior to joining the city of Columbus Beth was one of the Assistant Engineers with the city of Lafayette in northern Indiana where she managed federal aid projects as well as wrote specifications and plans for in-house projects and did construction management for those projects. Beth's prior employment includes roles as Assistant City Engineer and Engineering Assistant for the city of West Lafayette, Indiana. Beth is a licensed professional engineer in the state of Indiana and in 2009 she was honored with the Young Engineer of the Year Award by the Indiana Society of Professional Engineers. She is also an Indiana Department of Transportation (INDOT) certified Employee of Responsible Charge (ERC) for Federal Aid projects.
- *Andrew Beckort* - Effective October 27, 2014, Andrew was hired as the Assistant City Engineer. A graduate of Purdue University, Andrew most recently worked for Janssen & Spaans Engineering. For the City, he is responsible for new subdivision plan reviews, drainage plan reviews, coordination with the Planning Department and utility companies, and reviewing plans for new street light installations.
- *Randy Sims* - Randy is the Senior Engineering Technician with over 32 years in the department. He works with engineers, architects and contractors to ensure compliance with City specifications, policies and standards. Randy oversees the City's pavement management systems and communicates with the Indiana Department of Transportation. He inspects new subdivisions and oversees both small and large infrastructure improvement projects.



- Becky Douglas – Becky is an Engineering Technician with over 23 years with the City. She is responsible for budgets, accounts payable, the Shared Cost Sidewalk and Curb (SCSC) program, and the Community Development Block Grant (CDBG) sidewalk projects. She is an INDOT certified Employee of Responsible Charge (ERC) for Federal Aid Projects and serves as the MS4 Operator/Storm water program coordinator.
- Jason Perry – Jason is an Engineering Technician with over 10 years' experience in the department. Jason designs and coordinates drainage repair projects and is a CAD operator. He also serves as GIS program coordinator for the City. He works with utility companies and their contractors to ensure that proper permitting is obtained for street cuts and that the excavations are repaired according to City Standards. He inspects new subdivisions during construction and oversees small infrastructure improvement projects. He assists other city departments with map requests and works closely with the City Garage on in-house repairs of small scale storm sewer projects. He is also an INDOT certified Employee of Responsible Charge (ERC) for Federal Aid projects.
- Aimee Morris – Aimee has been an Engineering Technician with the City for over eight years. She is the first point of contact when people call or visit the office. She is the Engineering Department's public information officer and webmaster. Aimee prepares the weekly Engineering submittals and agenda for the Board of Public Works and Safety meetings. She maintains records of all the office permits and works with Duke and REMC to coordinate streetlight repairs.

## Federal Aid Road Improvement Projects

Federal Aid highway funds are authorized by Congress to assist the States in providing for construction, reconstruction, and improvement of highways and bridges on eligible Federal Aid highway routes and for other special purpose programs and projects. Federal Aid Road Improvement Projects are most commonly reimbursed at 80%, with a match of 20% coming from local funds.



## **Carr Hill Road Improvement Project (DES# 0900910)**

Location: Interstate 65 to Terrace Lake Road

Carr Hill Road is a suburban collector street on the southwest side of Columbus. It was once a quiet county road, but now serves as a thoroughfare in a growing residential area. The improved street provides one travel lane in each direction as well as bicycle lanes. Sidewalks were constructed along both sides of the street. The funding source for the project was 80% federal funds and 20% local (thoroughfare fund). Construction began in the summer of 2013 and the official completion date is April 5, 2015.

### **Project Data:**

Traffic Volume: 2,439 vehicles per day 2008

Future Traffic Volume:

3,500 vehicles per day 2028

Project Length: 2,964.23 feet

Right-of-Way: 1.52 acres

Designer: Janssen and Spaans Engineering

Contractor: Dave O'Mara Contractor, Inc.

Construction Cost: \$1,523,795







### **Indiana Avenue Improvement Project (DES#0500876)**

Location: State Street to Marr Road

Indiana Avenue is an urban collector street and is a main artery serving Columbus East High School and Clifty Park. The existing street is bordered by random parking areas for individual homes. Sidewalks exist in some areas but they are not continuous. The new street will provide one travel lane in each direction, in addition to bicycle lanes and parking lanes. Sidewalks will be constructed along both sides of the street. Storm water filtration areas and a storm sewer system are also included.

The City of Columbus has completed the acquisition of right-of-way for the improvement of this section of street. Also, the utilities have been relocated. Construction will begin in January to install new storm sewer in Clifty Park. If the weather is favorable, the construction is expected to last one construction season.

#### **Project Data:**

Traffic Volume: 2,400 vehicles per day 2010

Future Traffic Volume: 5,200 vehicles per day  
2030

Project Length: 0.977 miles

Right-of-Way: 30 parcels

Designer: Hannum Wagle and Cline

Contractor: Milestone Contractors, L.P.

Construction Cost: \$4,967,172



### **Rocky Ford Road Improvement Project (DES# 0500866 and 0710814)**

Location: Taylor Road to Talley Road



Rocky Ford Road is a major east-west thoroughfare across the northern section of the city. It is classified as a suburban collector street. The City has improved Rocky Ford from Central Avenue to Taylor Road in two previously constructed projects. The design of this section was revised from a four lane section to one travel lane in each direction, a two-way left turn lane, and bicycle lanes. Sidewalks will be constructed



along both sides of the street. A storm sewer system is also included. Pedestrian crossings will be constructed at key locations. As part of the project, the county will also be replacing the bridge over Sloan Branch. Right-of-way acquisition for the improvement of this section of street is complete. The funding source for the project is 80% federal funds and 20% local (thoroughfare fund). Construction is scheduled to begin in the spring of 2016. Construction is expected to last two construction seasons.

#### Project Data:

- Traffic Volume: 2,829 vehicles per day 2011
- Future Volume: 3,810 vehicles per day 2031
- Project Length: 0.909 miles
- Right-of-Way: 35 parcels
- Designer: Strand Associates
- Estimated Construction Cost: \$5,300,000

#### **Maple Street Extension (DES# 1173674)**

Maple Street is a north-south Local Street that runs along the eastern edge of the Columbus North High School and Northside Middle School campuses. Currently, Maple Street ends approximately 200 feet south of US31 where it provides access to a neighborhood of townhomes. This project will extend Maple Street to US 31 to provide an alternate route in and out of the campuses. As part of this extension project, the City would like to address pedestrian access to and from the school at the intersection of Maple Street with 27th Street and 27th Place by realigning 27th Place to create a traditional 4-way intersection. Additional pedestrian connectivity is also planned to connect US31 to Northside Middle School.

#### Project Details

Preliminary Engineering: United Consulting

Letting Date: October 2016

Construction Date: Targeted for 2017





### **HSIP Pedestrian Crossings (DES# 1173210)**

In 2012, the City of Columbus was awarded Highway Safety Improvement Program funds to improve/install the following pedestrian crossings:

- Marr Road at East High School
- Home Avenue at North High School (2 locations)
- 27<sup>th</sup> and California Street by Schmitt Elementary
- Lindsey Street and Fifth Street
- River Road and Royal Street



The Highway Safety Improvement Program (HSIP) was established as a core Federal-aid program. The overall purpose of the program is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads through the implementation of infrastructure-related highway safety improvements. The City has contracted with Strand Associates to design and develop plans for the installation of the six pedestrian crossing improvements. The crossing improvements are expected to include newer versions of Rapid Rectangular Flashing Beacons (RRFB's) at five locations and a HAWK signal at Lindsey Street and 5<sup>th</sup> Street, in addition to improved signage, pavement markings, and pedestrian refuge areas. The approved funds are 90% federal and 10% local (thoroughfare fund). Construction is expected to be complete in 2015.

Designer: Strand Associates

Estimated Construction Costs: \$384,000

### **Traffic Sign Replacement Project (DES# 1297755)**

Cities that accept Federal Highway Administration funds for road projects now have a mandate - replace all of your current signs by 2018 with more reflective ones that will be easier for drivers to read. The mandate is planned in stages to increase public safety by making traffic signs





easier to read during all weather conditions. There are three key deadlines for the mandate: One for an assessment and maintenance plan, a second for the replacement of regulatory (safety) signs, and a third for replacement of street signs. The City received federal aid to help with this transition.

Designer: In-House

Estimated Cost: \$240,257.00 (90%10%)

### **Westenedge Drive Improvement Project (DES# 0500868)**

*Location: National Road to Rocky Ford Road*

The City of Columbus is reconsidering the design and the timing of the improvement of this section of street. This street is an urban collector and is a main artery to five schools. This street is also a connecting route for the Columbus People Trail system. The funding source for the project would be 80% federal funds and 20% local (thoroughfare fund).

### **Taylor Road Improvement Project (DES# 0500875)**

The City of Columbus is reconsidering the design and the timing of the improvement of this section of street. This street is a suburban collector street. The funding source for the project would be 80% federal funds and 20% local (thoroughfare fund).

## **Local Projects**

### **Accessible Ramps Phase 1**

An accessible ramp is a short ramp cutting through a curb or built up to it. If designed and constructed to be accessible, a ramp provides an accessible route that people with physical disabilities can use to safely transition from a roadway to a curbed sidewalk and vice versa. To comply with the Americans with Disabilities Act (ADA) requirements, the accessible ramps provided must meet specific standards for width, slope, cross slope, placement, and other features. Generally, ramps must be provided wherever a sidewalk or other pedestrian walkway crosses a curb. The requirements vary depending on the age of a highway, road, street, or



sidewalk, and depending on when and whether it was paved, repaved, resurfaced beyond normal maintenance, or otherwise altered.

Streets, sidewalks, roads, and highways that were built before January 26, 1992, and have not since been altered, are not required to be made accessible. Alterations are another category of construction under the ADA. A street or sidewalk falls into this category if it was constructed before January 26, 1992, and has since been altered. An alteration is a change that affects usability. Resurfacing a roadway is an alteration. By contrast, filling potholes is not.

In 2013, the two phases of the EDIT Overlay project included resurfacing 13.22 miles of City streets, listed below. The 2014 Curb Ramps Phase 1 project was comprised of installing curb ramps and sidewalk at intersections on those streets:

### 2013 Overlay List for 2014 Curb Ramp Project

Street	From	To
Washington	11th	25th
7th	Lafayette	Werner
8th	California	Maple
10th	Central	Reed
Chestnut	2nd	3rd
Home Ave	16th	25th
17th	Lafayette Ave	Sycamore St
18th	Haw Creek Ave	Hospital Bridge
19th	Central	Hawcreek Ave
22nd	Central	Home
27th	Washington	Home
27th	Home	Maple
27th	Central	Maple
Maple	25th	Tipton Lane
Talley Rd	25th	Bridge @ Sloan Branch
Marr Rd	25th	30th
25th	Marr	Taylor Rd
7th	Pleasant Grove	Cherry
McKinley Ave	SR 46	Mapleton St
McKinley Ave	Gladstone	Marr Rd
Christopher Ct	Marr Rd	Terminus
Mapleton	SR 46	Railroad Tracks
Champion Dr	Tipton Lakes Blvd	Timber Ridge Dr



Co. Rd 200 S	I-65	Crossing Lane
Goeller Road	Corp Bound. @ Oakbrook	Corp. Bound @ Westlake Hills
Co. Rd 325 W	SR 46 W	Carlos Folger
Terrace Lake Road	Goeller Blvd	Shields Drive
Goeller Blvd	SR 46 W	Terrace Lake Rd
<b>Street</b>	<b>From</b>	<b>To</b>
Elm Street	17th	22nd
Co. Rd 200 S	Cross Creek	I-65
Reeves Way	6th	7th
Wilson St	7th	10th
Chestnut St	8th	16th
California	2nd	3rd
California	6th	11th
California	25th	16th
Pearl St	25th	27th
Progress Park	Progress Park Dr	US 31
Poplar Dr	26th	29th
Timbercrest	Eastgate Dr	Waycross Dr
High View Way	Address 3850	Co Rd 300 N
Monterey	High View Way	Greenbriar Dr
Premier Dr	Address 3892	Monterey
Newton St	19th	22nd
Tipton Lane	Franklin St	Sycamore
14th	Central	Hutchins
19th	Elm	Chestnut
23rd	Chestnut	Home
24th St	Home	Chestnut
Pennsylvania	19th	25th
Covert St	Marr	Kentucky
Illinois	SR 46	Gladstone Ave
Illinois	Brooks	Covert
Mapleton	McKinley	Indiana
Cherry	McKinley	Indiana
Catalina Drive	Co Rd 200 S	Terminus
Pine Hill	Carr Hill Rd	Terminus
Ridgeview Lane	Reece Lane	711 Ridgeview Lane
Kinney Lane	Harrison Ridge Rd	Terminus
Luse Dr	Coles Dr	Terminus
Shoreview	Coles Dr	Terminus
Mallard Point	Coles Dr	Terminus
Shields Dr	Coles Drive	Terrace Lake Rd
Bramblewood Ct	Champion Dr	Terminus
Northwood Dr	Tipton Lakes Blvd	Champion Dr



## **2014 City Street Resurfacing**

Each year, depending on the available funding, as many local streets as possible are patched, milled and resurfaced. In 2014 the City restored dozens of miles of city streets and completely reconstructed vital, highly trafficked residential collector streets.

### **2014 City Street Resurfacing/Asphalt**

<b>Street</b>	<b>From</b>	<b>To</b>
14th	Michigan	Union
Cottage Ave	13th	14th
Michigan	10th	14th
Union	19th	22nd
Gladstone	South Marr	SR 46E
Hope/Cherry	Mapleton	7th
S. Mapleton	Kreutzer Dr	RR Tracks
Kreutzer Dr	S. Mapleton	Gladstone
Smith	Ohio	McKinley
Morningside Dr	McKinley	McClure Rd
Nolting	McClure Rd	Parkway Dr
Smith	6th	7th
Cleveland	6th	7th
Smith	7th	10th
Wallace St	Oak St	Mapleton
4th	Gladstone	Cherry
Cleveland	Ohio	McKinley
Webber St	6th	7th
Olmstead Ct	McKinley	Terminus
Cleveland	McKinley	4th
N. Beatty St	Indiana	SR 46 E
Behren Ct	SR 46	Terminus
Georgia	Beatty	Pence
Kentucky	Hege	Beatty Lane
Marr Rd	McKinley	10th
Marr Rd	10th	16th
Brown St	2nd	3rd
5th	Chestnut	California
Washington St	25th	US 31
Lowell Rd	CR 200 W	CR 150 W
Carr Hill Rd	Carr Hill Ct	600 West of Champion
Champion Ct	Bramblewood	Terminus
Thicket Way	Tipton Lakes Blvd	Thicket Ct
Thicket Ct	Thicket Way	Terminus
Two Mile House Rd	SR 46 W	Terminus



Yokewood Dr	Terrace Lake Rd	Terminus
Ridgeview Lane	532	Terminus
Harrison Ridge Ct	Harrison Ridge Rd	Harrison Ridge Rd
Wren Ct	Blackhawk Dr	Terminus
Blackhawk Ct	Blackhawk Dr	Terminus
Blackhawk Dr	Tipton Lakes Blvd	Redbird Dr
Redbird Dr.	Champion Dr	Terminus
Terrace Lake Dr	Terrace Lake Dr N.	Terrace Lake Dr S.
Baywood Ct	Northwood	949 Baywood Ct line
Talley Rd	25th St	Sheridan
Street	From	To
15th	Gladstone	Azelea Dr
Lilac	Whippoorwill	Terminus
Whippoorwill	Forsythia	Lantern
Marr Rd	National	Sims Ct
23rd	Midway	Terminus
Timbercrest Dr	Chandler	Dawnshire
24th	Midway	US 31
Waycross Dr	Timbercrest	Taylor Rd
31st	Sherwood	Taylor
Nottingham	Sherwood	Crescent
Crescent	Nottingham	Sherwood
Revere Ct	31st	Terminus
Countess Way	Flintwood Dr	Jefferson St
Herman Darlage	25th	US 31
23rd	Home	Gilmore
20th	Cottage	Central
Tipton Ln	Home	Sycamore
River Rd	N Riverside Dr	Cunningham
Washington St	US 31	Rocky Ford Rd

### **Concrete Street Patching**

On August 12, 2014 Milestone Contractors, L.P was awarded the Concrete Street Repair contract with a low bid of 346,070.00. Concrete street repairs were made in the areas of Harrison Ridge, and Carya Square. Milestone installed 2400 square yards of concrete patching, 400 linear feet of underdrain and 200 linear feet of concrete curbs.





## **Crack Seal**

Reece Seal Coating was awarded the City's 2014 Crack Sealing contract in May with a bid amount of \$148,736.80. Crack sealing consists of cleaning, preparing and sealing pavement joints and random pavement cracks on selected streets throughout the city. Sealing cracks in city streets increases pavement life, allowing a longer time between more intense street construction, such as resurfacing.

## **Woodside Business Park Full Depth Pavement Reclamation**

In April 2014, Milestone was awarded the Full Depth Pavement Reclamation (FDR) contract in the amount of \$1,430,887.00, paid for by the Columbus Redevelopment Commission using Tax Increment Financing (TIF) funds. This rehabilitation procedure entails pulverizing the old pavement structure, blending in a stabilizing agent, compacting, adding additional material, and resurfacing. This is a "green procedure" because the pavement is recycled, rather than hauled away and disposed of. The FDR project at Woodside Business Park and Woodside South Industrial Park totaled 3.4 miles, which amounted to 49,000 square yards of asphalt pavement being recycled. Along with the FDR project, the City installed 32,438 lineal feet of underdrain, and regraded existing roadside swales.

Upon completion of the work, Milestone installed a two foot stone shoulder on all the streets, which should help keep the edge of pavement from becoming broken off and irregular. The cost of the FDR and Overlay process was around \$17/yard versus paying \$100/yard for road reconstruction. The City met with the business owners in both industrial parks to obtain their support and keep the impact to shift changes and to the shipping and receiving of goods, to a minimum. Along with the FDR project at Woodside, these additional four areas in the Airport TIF district (.83 miles) were added to project for a cost of \$256,129.12.

### **2014 FDR**

<b>Street</b>	<b>From</b>	<b>To</b>
<b>Old Lane</b>	<b>CR RD 450 S</b>	<b>Inwood Dr</b>
<b>Interlake Dr</b>	<b>Inwood Dr</b>	<b>Norcross</b>
<b>Barker Dr</b>	<b>Interlake Dr</b>	<b>Inwood Dr</b>
<b>Inwood Dr</b>	<b>Interlake Dr</b>	<b>Norcross</b>
<b>Norcross</b>	<b>CR RD 450 S</b>	<b>Inwood Dr</b>
<b>175 West</b>	<b>CR RD 450 S</b>	<b>Deaver Road</b>
<b>International Dr</b>	<b>SR 58</b>	<b>International Dr W</b>



<b>International Ct</b>	<b>International Dr</b>	<b>Terminus</b>
<b>Cunningham Rd</b>	<b>River Road</b>	<b>Warren Dr</b>
<b>Whitney Ct</b>	<b>Central Ave</b>	<b>Terminus</b>
<b>Poshard</b>	<b>Central Ave</b>	<b>Kelly</b>
<b>Middle Rd</b> <b>Middle Rd</b> <b>Poshard Dr</b> <b>Cunningham Dr</b> <b>Whitney Ct</b>	<b>4010 Middle Rd</b> <b>South of Cessna</b> <b>Central Ave</b> <b>River Rd</b>	<b>Cessna</b> <b>North of Hawpatch Dr</b> <b>Kelly St</b> <b>East of North Warren Dr</b>

### **Cold in Place Recycling**

Cold in Place Recycling (CIR) is also a “green pavement” preservation method. It is a process incorporating deeper milling and injecting liquid asphalt emulsion into the milled material in a single pass of 12’ foot mat. Once it goes through the milling machine and incorporates the liquid asphalt emulsion, it sends the material out the rear of the machine into a windrow. Directly behind the milling machine is a paver with a pick up apparatus that places it in the hopper of the paver. Once in the hopper it is fed through the paver and the paver spreads the cold material to a 12’ mat. A combination of vibratory steel drum rollers and a pneumatics tire roller complete a roll pattern. As the rollers are compacting the material, a test person is using a nuclear density gauge to test and help develop a strength curve to achieve maximum density. This CIR process was administered by Dunn Company, out of Decatur, Illinois. After the process had been given time to cure, Milestone overlaid the streets with one and a half inches of surface. This process recycles existing pavement and helps to remove reflective cracking from the under layers of old and brittle pavements. The City processed 20,455 square yards of CIR on South Mapleton Drive, south of the railroad tracks to Kreutzer Drive, Kreutzer Drive, and Marr Road from McKinley Avenue to just south of 10<sup>th</sup> Street. These 3 streets total right at 1 mile, and cost was approximately \$15/yd.

## **Sidewalks and Curbs**

### **Shared Cost Sidewalk and Curb (SCSC) Program**

WalkWorks, the City’s first sidewalk replacement program, was established in 1991 to encourage property owners to replace unsafe, deteriorated sidewalk. City Ordinance defines sidewalk and curb as the responsibility of the property owner. The Walkworks program reimbursed property owners 10 dollars per linear foot of sidewalk, after it was replaced and inspected. In 2014, the WalkWorks program was updated to also include curb, and renamed the Shared Cost Sidewalk and Curb (SCSC) Program. SCSC reimburses four dollars per square foot of sidewalk and 25 dollars per linear foot for curbs.



2014 Construction Season	
Replaced	Citizen Reimbursements
1,768 linear feet Sidewalk	\$34,733
2,102 linear feet Curb	\$52,562

### **Community Development Block Grant (CDBG) Sidewalk Project**

In coordination with the Community Development Department, Engineering provides technical assistance for the CDBG sidewalk project. This grant provides funds to install sidewalks in income qualified areas. In 2014, 1,456 linear feet of sidewalk was replaced at over 30 addresses on California and Franklin streets. Also, 15 ramps were installed.

## **Drainage Repairs**

The Engineering department supervised 54 drainage repair projects completed by the City Garage employees. Inlet repairs consisted of curb replacement, inlet structure repair & replacement, installation of new castings, asphalt repair and replacement.

Total cost \$70,168.54

Average cost per job \$1299.41

In March 2014, the Tipton Lakes Drainage Repair quote was awarded to Excavation Plus with a low quote of \$24,492.20. This quote involved the general maintenance of storm inlets at Turtle Bay and Pintail. The contractor removed and replaced approximately 166 linear feet of curb and removed and resealed 25 inlet castings. Along with the inlet and curb repairs were replacement of 130 square feet of accessible ramps and 180 square feet of sidewalk.





In August 2014, the City contracted with Gehring Underground to line a failing storm sewer pipe at Channel Drive. The contractor internally lined an existing single wall High-Density Polyethylene (HDPE) pipe that was starting to show evidence of failure, with a solid wall Standard Dimension Ratio (SDR) 17 pipe material. The lengths of pipe were fused together in the utility easement and then floated out into the lake with the help of a utility barge belonging to Tipton Lakes. The new pipe was then pulled back through the existing pipe to the inlet box at the street. The total length is 180' feet.



In September 2014, the Oakbrook Storm Sewer Replacement Project was awarded to Excavation Plus with a low quote of \$21, 230. This job was to replace some failing storm sewer in the Oakbrook area of Tipton Lakes. The pipe contractor removed 140' feet of 12"inch corrugated metal pipe (CMP) and single wall High-Density Polyethylene (HDPE) pipe and replaced with new 12" N-12 pipe. The CMP had started to deteriorate on the bottom half of the pipe and the sections of single wall HDPE pipe had started to separate at the joints causing sinkholes within the easement between 160 and 180 Oakbrook Drive.



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## Stormwater

### **Stormwater Overview**

The Environmental Protection Agency's (EPA) Clean Water Act of 1972 introduced the National Pollutant Discharge Elimination System (NPDES) which addressed sources of pollution including Municipal Separate Storm Sewer Systems (MS4). Phase II NPDES regulations issued in 1999 regulated Columbus and urbanized areas in Bartholomew County. The Clean Water Act NPDES is an unfunded mandate.

The NPDES permit contains elements called minimum control measures (MCM) that, when implemented, should result in a significant reduction in the discharge of pollutants.

Columbus continues to implement the following MCM's:

- \*Public Education and Outreach
- \*Public Input on Key Issues
- \*Illicit Discharge Detection & Elimination
- \*Construction Erosion & Sediment Control
- \*Post Construction Best Management Practices
- \*Good Housekeeping at City Facilities

In 2014, the City received and reviewed 22 storm water permit requests (for sites over one acre). Engineering continues to conduct site visits as necessary, to ensure the developers and contractors comply with the permit requirements.

In 2014, Public Education and Outreach Requirements were met in several ways including:

- The MS4 Coordinator attended Senior Project Fairs at both Columbus East and Columbus North High Schools.
- The Cummins Health, Safety & Environmental Fair was attended by the MS4 Coordinator. Educational brochures and volunteer opportunities were offered.





### **Dry Weather Outfall Screening**

Indiana Department of Environmental Management (IDEM) requires an MS4 Operator to develop a Storm Water Quality Management Plan which includes a commitment to develop and implement a strategy to detect and eliminate illicit discharges to the MS4 conveyance. This requirement includes screening all storm water outfalls with a pipe diameter of 12 inches or larger during dry weather. Limited staff necessitates use of an outside consultant to complete IDEM's requirement of dry weather screening. In late 2013, a contract for \$6,700 was signed with Butler, Fairman and Seufert, out of Indianapolis, to screen the City's outfalls during 2014.

## **Acceptance of Streets and Related Infrastructure**

### **Deer Creek Subdivision, Phase 2**

.579 miles of new street

41 residential lots

3705' storm sewer



## **Permits Overview**

The City Engineer's Office administers several types of permits to control day to day impacts to infrastructure and traffic. Applications for permits can be picked up in the Engineering office or accessed online. [www.columbus.in.gov/engineering/permit-and-application-forms](http://www.columbus.in.gov/engineering/permit-and-application-forms). There is no charge for making these permit applications to the Engineering office.



A **Request for Special Use of Right-of-Way** is required any time the right-of-way is going to be encumbered. Typical requests are for street closures, sidewalk closures, or on-street parking spaces. In 2014, **173** requests were processed, including requests for benefit walks and runs, and events on Fourth Street. Also requests were approved for a wedding in Friendship Alley, parking the Indiana Bloodmobile, the Mill Race Marathon race and associated festivities, power washing and painting and a variety of street repair related closures

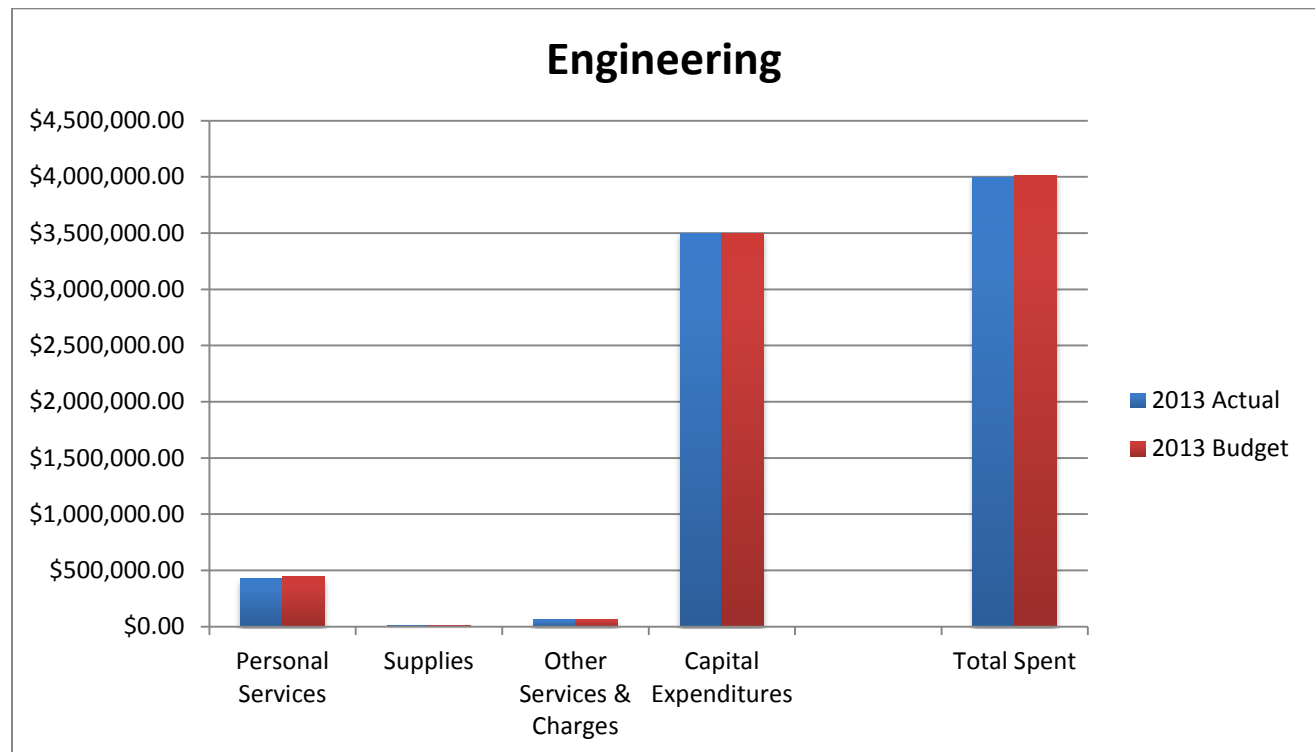
A **Permit to Excavate in a Public Street, Alley or Right-of-Way** is self explanatory. Applicants for this type of permit are generally accessing utilities that reside within the right-of-way of a City street. Some utilities lie under pavement necessitating a street cut to access the utility. Although there is no cost to make the permit application, contractors are required to bond their work for a period of three years to protect the City infrastructure which they have impacted. The City Engineer's Office processed **294** permits to excavate in a public street, alley or right-of-way in 2014.

**Improvement in the Right-of-Way Permits** are required for work performed in the right-of-way that does not fall under the Permit to Excavate in Public Street, Alley or Right-of-Way. Typical applications are for sidewalk, driveway, or curb repairs. Improvements are required to meet City standards and the Engineer's Office inspects all work. In 2014, **90** Improvement in the Right-of-Way Permits were processed by the City Engineer's Office.



## Financials

<b>Engineering</b>	2013 Actual	2013 Budget	%
Personal Services	\$428,044.75	\$444,862.00	96.22%
Supplies	\$8,929.04	\$9,490.00	94.09%
Other Services & Charges	\$59,707.52	\$61,250.00	97.48%
Capital Expenditures	\$3,500,000.00	\$3,500,000.00	
<b>Total Spent</b>	<b>\$3,996,681.31</b>	<b>\$4,015,602.00</b>	<b>99.53%</b>
Year Over Year- 2012/2013	\$3,021,337.55	\$3,003,288.15	
Year Over Year- 2012/2013	309.77%	297%	





<b>Engineering</b>	2014 Actual	2014 Budget	%
Personal Services	\$427,131.32	\$460,077.00	92.84%
Supplies	\$6,830.20	\$9,490.00	71.97%
Other Services & Charges	\$61,250.00	\$61,250.00	100.00%
Capital Expenditures	\$3,500,000.00	\$3,500,000.00	100.00%
<b>Total Spent</b>	<b>\$3,995,211.52</b>	<b>\$4,030,817.00</b>	<b>99.12%</b>
Year Over Year- 2013/2014	<b>\$1,469.79</b>	\$15,215.00	
Year Over Year- 2013/2014	<b>-0.04%</b>	0.38%	

